RECLAMATION

Managing Water in the West

CVP M&I Water Shortage Policy Review

Stakeholder Workshop #2

June 23, 2010

Red Lion Hotel, 1401 Arden Way, Sacramento



U.S. Department of the Interior Bureau of Reclamation

Agenda

Time	Topic
9:00 – 9:30 am	Welcome and Introductions
	Agenda Review
9:30 – 10:00 am	 Results/Actions from Workshop #1
10:00 – 10:30 am	Current WSP Implementation
	CVP System Overview
	CVP Allocation Process
10:30 – 10:45 am	• Break
10:45 – 11:30 am	Current WSP Implementation
	Key Terms of the WSP
	Public Health & Safety Calculation
	M&I Public Health & Safety Process
11:30 – 12:15 pm	Shortage Calculation – District A
12:15 – 1:30 pm	• Lunch
1:30 – 2:45 pm	Shortage Calculation – District B
	Shortage Calculation – District C
2:45 – 3:30 pm	Question and Answer Period
	Next Steps

Objectives of Stakeholder Workshops

- Review CVP M&I Water Shortage Policy (WSP) status
- Enhance understanding of WSP
- Obtain input from CVP contractors and public (Stakeholders)
- Help guide decisions on WSP

Today's Workshop Objectives

- Discuss CVP system & allocation process
- Discuss key terms of the WSP
- Review current WSP implementation
 - Public health and safety calculation
 - Shortage calculation examples
- Chart path for next workshops

Workshop Ground Rules

- Listen actively
 - Try to understand the basic interests of the presenter
 - If uncertain, restate what you heard in your own words
- Provide input
 - Use microphones so all can hear
 - Be focused and brief
 - Share information, ideas and concerns
- Exercise courtesy and respect
 - Be respectful; no put-downs/derogatory language
 - Leave "space" for others to speak
- Hold questions until Q&A

Review Results from Previous Workshop

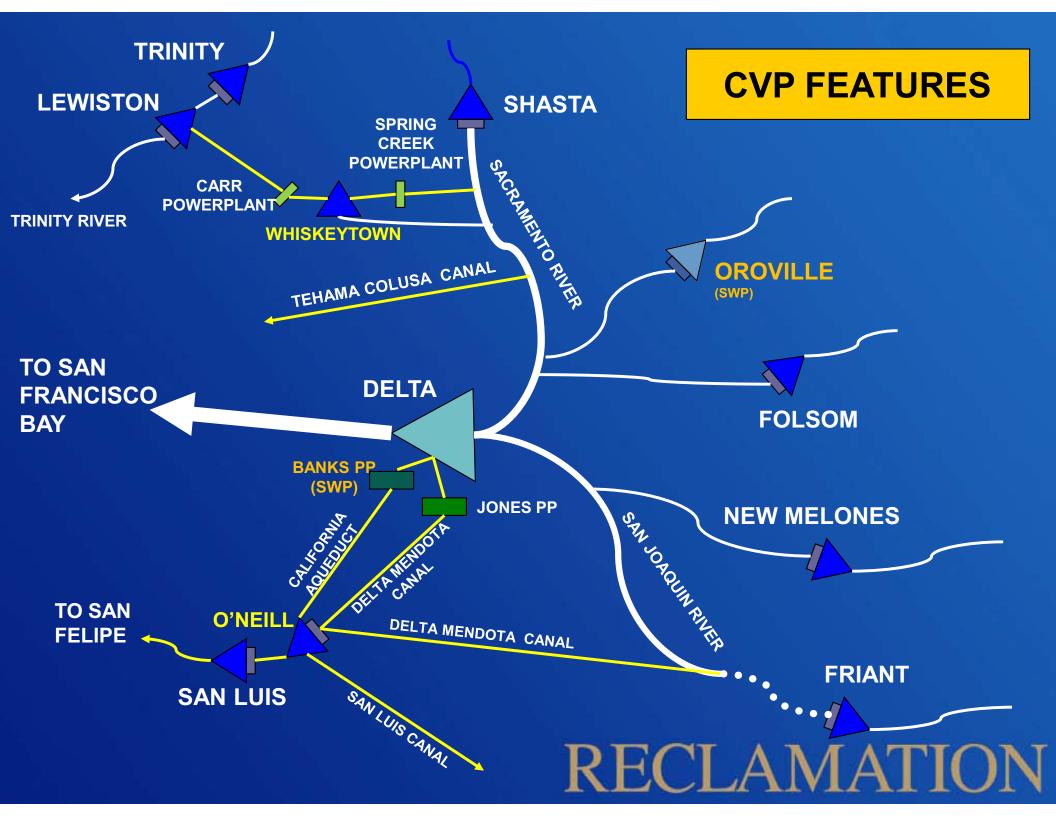
Key Requests from Workshop #1

- Policy clarity
- Implementation process
- Interpretation examples
- Water source, historical use, and adjustments
- Health & safety considerations/calculations

Issue Prioritization

Is	Issue	
1	Non-federal water supplies	20
2	M&I vs. irrigation reduction	19
3	What has Reclamation done as an administrative baseline?	16
4	Historical use baseline	13
5	Groundwater overdraft	9
6	Application of WSP to Friant and East Side Divisions	9
7	American River integration	8
8	Public health and safety implementation	6

Current M&I WSP Implementation



CVP Allocation Analysis Process

Beginning of Month Reservoir Storages

Other Federal Operations
Obligations
Ex: CVPIA B2, COA, Wanger
ESA, etc.

- A. South of Delta CVP
 Contract Allocation Policy
 Priorities
- B. Seasonal CVP Demand Curves

Legend

Data Input

Regulatory Commitments

CVO Analysis

Reclamation Announcement

CVP Forecast Model Spreadsheet

Reservoir Modeling
Assessment

Reservoir Carryover
Assessment

Export and San Luis
Lowpoint Operations
Assessment

Final CVP Forecast of Operations

CVP Water Supply
Allocation Announcement

Central Valley Hydrology and Reservoir Inflow Forecasts

- A. Water Right Commitments
- B. Min. Flow/Env. Commitments
- C. Delta Commitments
- D. Coldwater Pool Commitments

If carryover is not a limiting factor, then 100% Allocation to NOD CVP contracts

Q&A Period

Break

Reconvene at 10:45 am

Current M&I WSP Implementation (Continued)

Key Terms of WSP

- Contract entitlement
- Non-CVP water
- Historical use
- Adjustments
 - Growth
 - Extraordinary water conservation measures
 - Non-CVP supplies
- Public health and safety

Public Health & Safety Calculation

- 4 elements of Public Health & Safety need
 - Domestic (D, human health and safety): 50 gpcd
 - Commercial and Institutional: 80% of projected needed supply
 - Industrial: 90% of projected needed supply
 - Conveyance loss: 10%
- Formula for calculation
 - Public health & safety
 - = (D * 50 gpcd + Commercial/Institutional * 0.8 + Industrial * 0.9) plus 10% for losses

Public Health & Safety Calculation

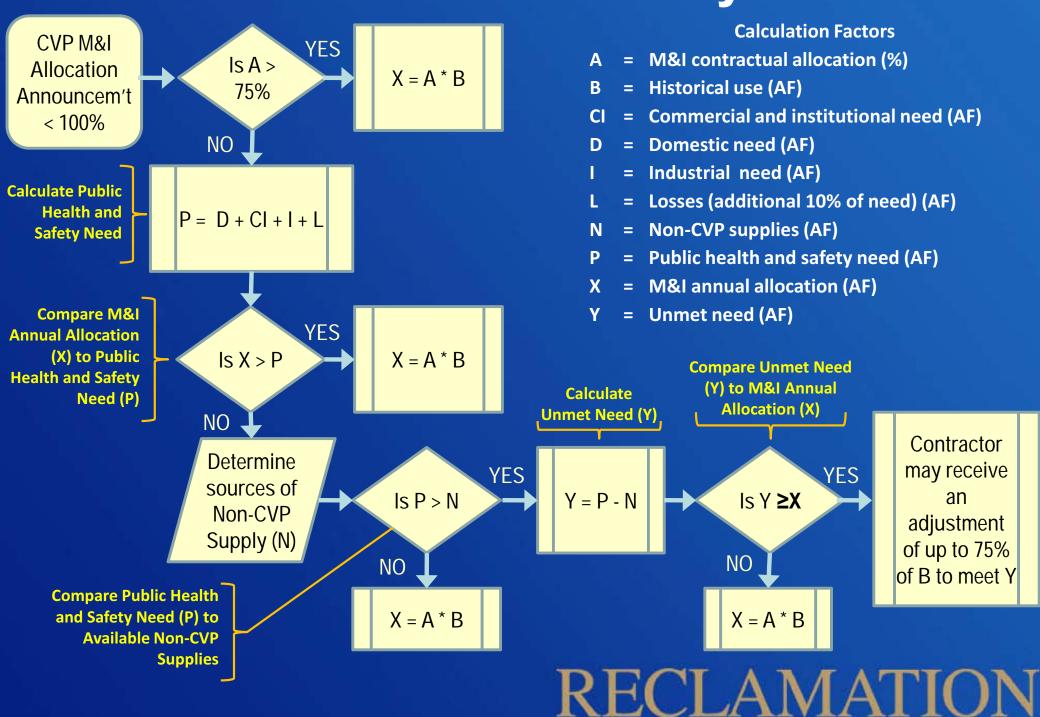
Factors	District X
Annual Demand (AF)	
Domestic (D)	30,000
Commercial and Institutional (CI)	20,000
Industrial (I)	10,000
Losses	5,000
Total Annual Demand	65,000
Public Health & Safety Need (AF)	
Population	100,000 people
Domestic Value (Pop. * 50 gpcd)	5,600
Comm/Inst .Value (80% of CI)	16,000
Industrial Value (90% of I)	9,000
Conveyance loss (10% * [D + Cl + l])	3,060
Total PH&S Need	33,660

Current M&I WSP

Irrigation	M&I	
(% of contract entitlement)		
100%	100% of contract total	
Between 75% and 100%	100% of contract total	
70%	95% of historical use	
65%	90% " "	
60%	85% " "	
55%	80% " "	
Between 25% and 50%	75% " "	
20%	70% " " or public health & safety	
15%	65% " " or public health & safety	
10%	60% " " or public health & safety	
5 %	55% " " or public health & safety	
0%	50% " " or public health & safety	
Note: If CVD water is not evailable. MOI contractors may be reduced		

Note: If CVP water is not available, M&I contractors may be reduced below 50%.

M&I Public Health & Safety Process



Example Shortage Calculations

Example Shortage Calculations

- Hypothetical water agencies; calculate annual allocation when M&I = 75% and 50%
 - District A
 - 40 TAF in supply contracts, 50% CVP + 50% other surface water, greater CVP historical use
 - District B
 - 40 TAF in supply contracts, 50% CVP + 50% other surface water, less CVP historical use
 - District C
 - 40 TAF in supply contracts, 100% CVP supply

Shortage Calculation – District A

Contract Supply

Historical Use

CVP - 20 TAF

CVP - 20 TAF

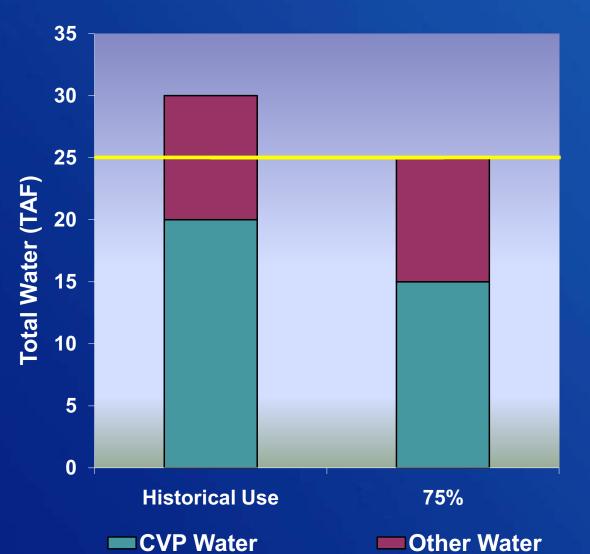
Other - 20 TAF

Other – 10 TAF

- Public health & safety need = 25 TAF
- Annual allocation when:
 - M&I = 75%
 - M&I = 50%

District A - M&I @ 75%

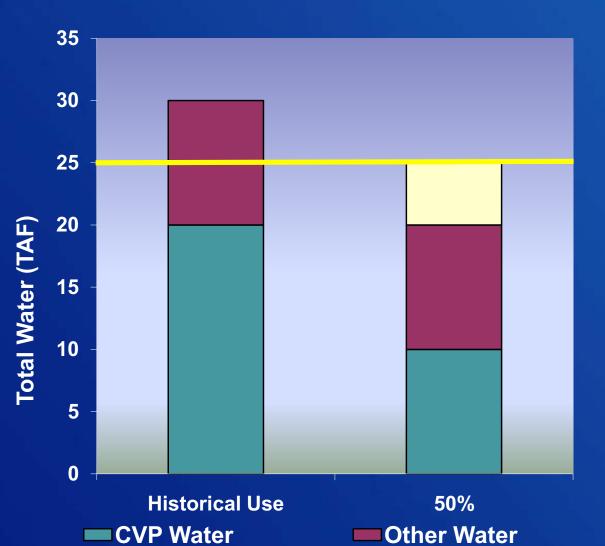
—Public H&S



H&S Adjustment

	Historical Use (TAF)	District A Supplies (TAF)
CVP Water	20	15
Other Water	10	10
Total	30	25
Public H&S Need		25
CVP Historical Use Adjustment		0

District A - M&I @ 50%

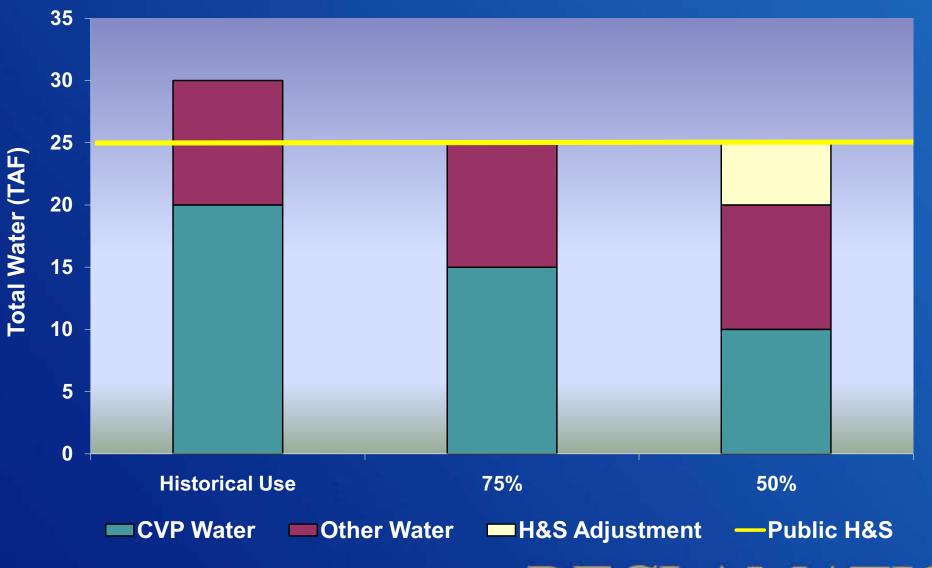


-Public H&S

H&S Adjustment

	Historical Use (TAF)	District A Supplies (TAF)
CVP Water	20	10
Other Water	10	10
Total	30	20
Public H&S Need		25
CVP Historical Use Adjustment		5

District A Scenario Summary



Q&A Period

Morning Session Closing

- Review / questions for clarification:
 - **-1**
 - **-2**
 - **-3**
 - _ 4

Lunch Break

- On your own
- See map of suggested restaurants
- Reconvene at 1:30 pm

Example Shortage Calculations (Continued)

Shortage Calculation – District B

Contract Supply

Historical Use

CVP - 20 TAF

Other - 20 TAF

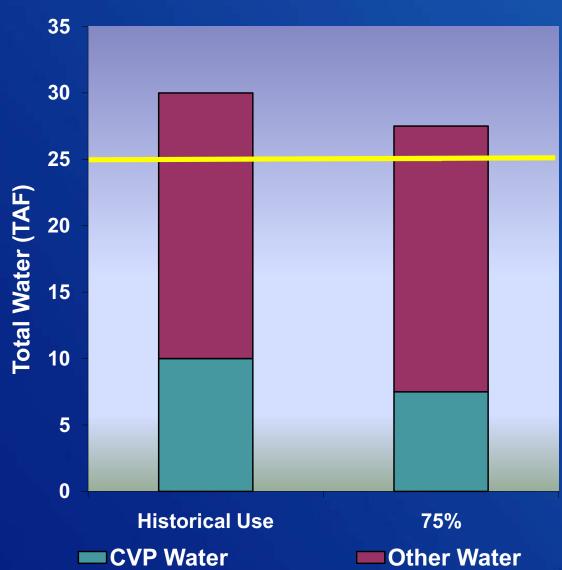
CVP - 10 TAF

Other – 20 TAF

- Public health & safety need = 25 TAF
- Annual allocation when:
 - M&I = 75%
 - M&I = 50%

District B - M&I @ 75%

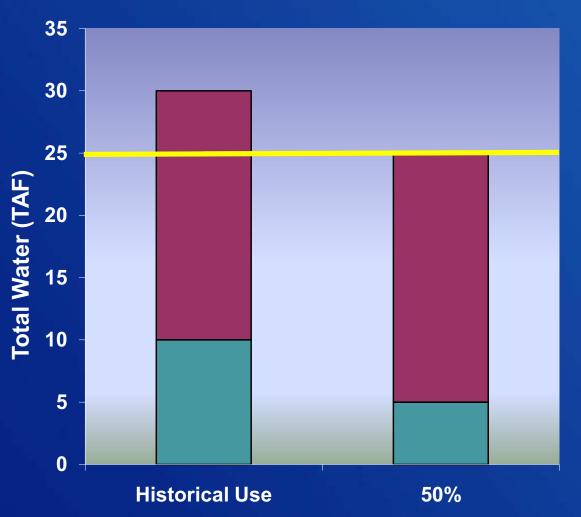
—Public H&S



H&S Adjustment

	Historical Use (TAF)	District B Supplies (TAF)
CVP Water	10	7.5
Other Water	20	20
Total	30	27.5
Public H&S Need		25
CVP Historical Use Adjustment		0

District B - M&I @ 50%

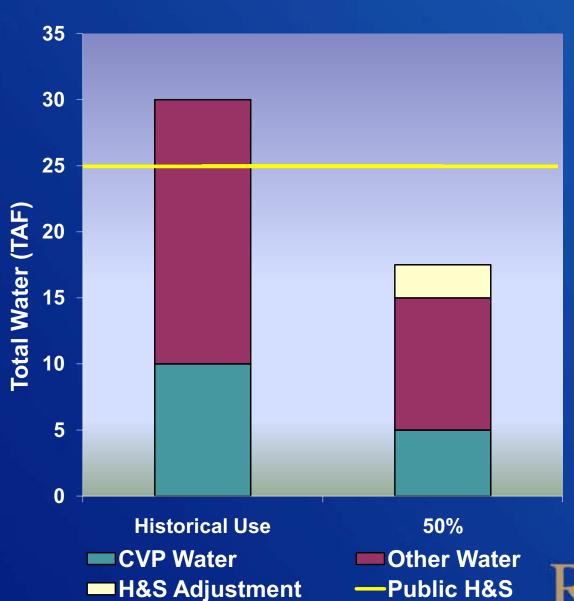


	Historical Use (TAF)	District B Supplies (TAF)
CVP Water	10	5
Other Water	20	20
Total	30	25
Public H&S Need		25
CVP Historical Use Adjustment		0

■ CVP Water
■ H&S Adjustment

Other WaterPublic H&S

District B - M&I @ 50%

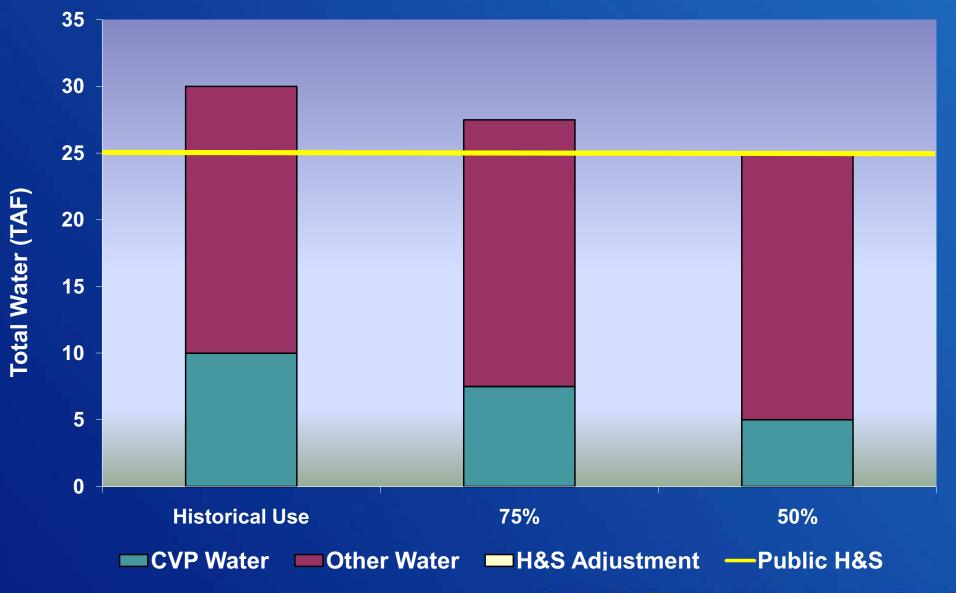


	Historical Use (TAF)	District B Supplies (TAF)
CVP Water	10	5
Other Water	20	10 ₁
Total	30	15
Public H&S Need		25
CVP Historical Use Adjustment		2.5

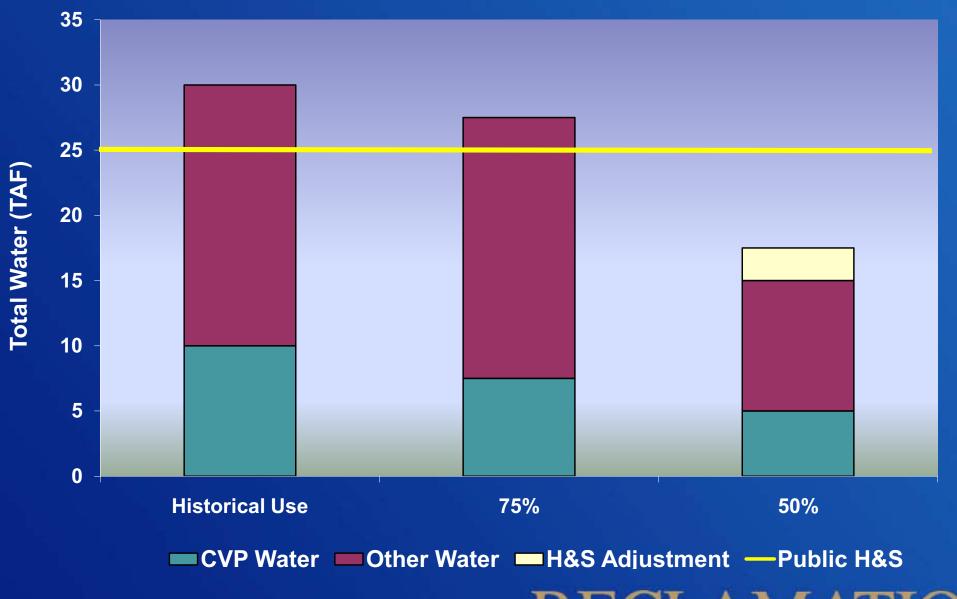
Notes:

1. Assumes that "Other Water" has less than 100 percent reliability. For this example, also 50 percent.

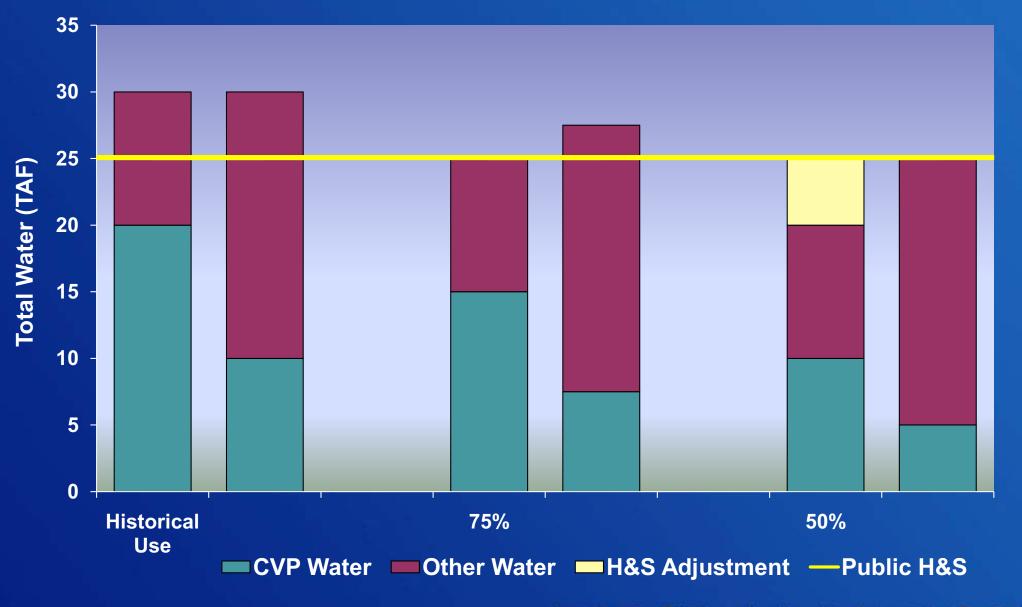
District B Scenario Summary



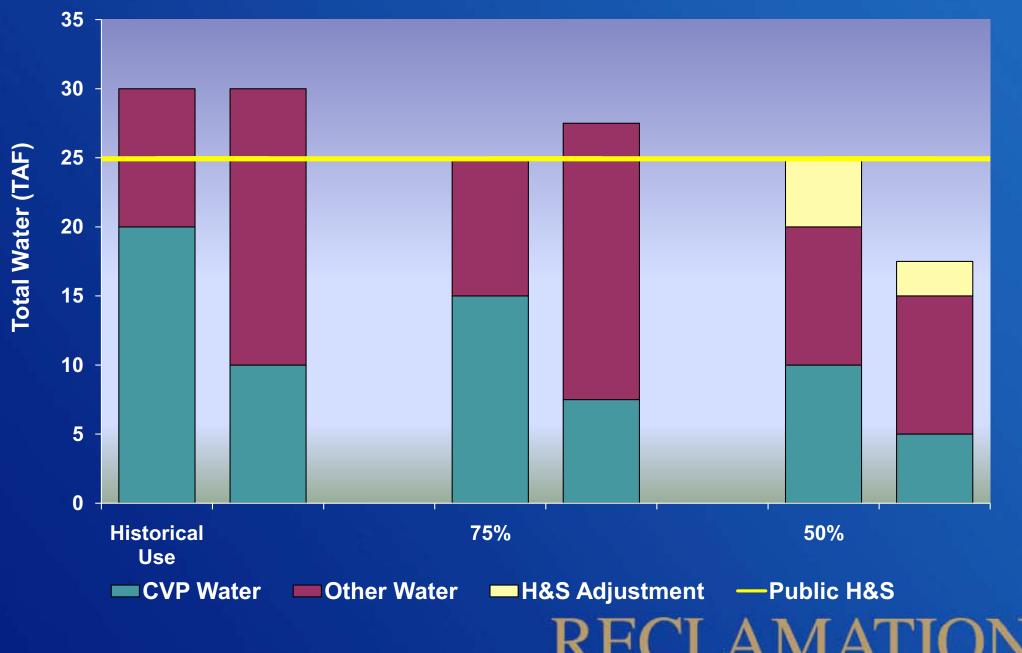
District B Scenario Summary



Districts A & B Comparison



Districts A & B Comparison



Shortage Calculation – District C

Contract Supply

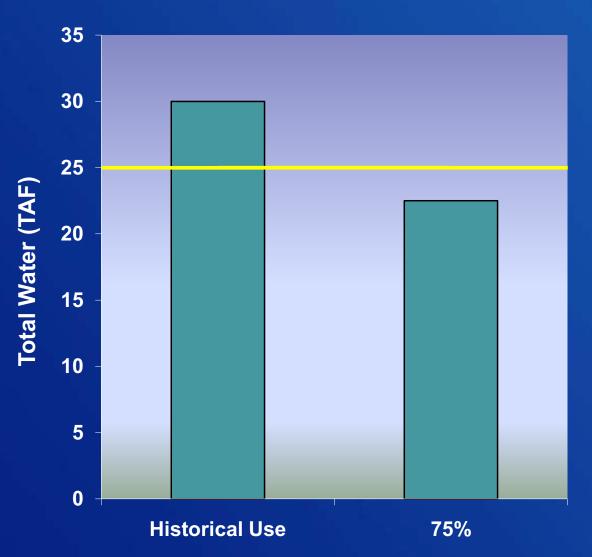
Historical Use

CVP - 40 TAF

CVP - 30 TAF

- Public health & safety need = 25 TAF
- Annual allocation when:
 - M&I = 75%
 - M&I = 50%

District C - M&I @ 75%

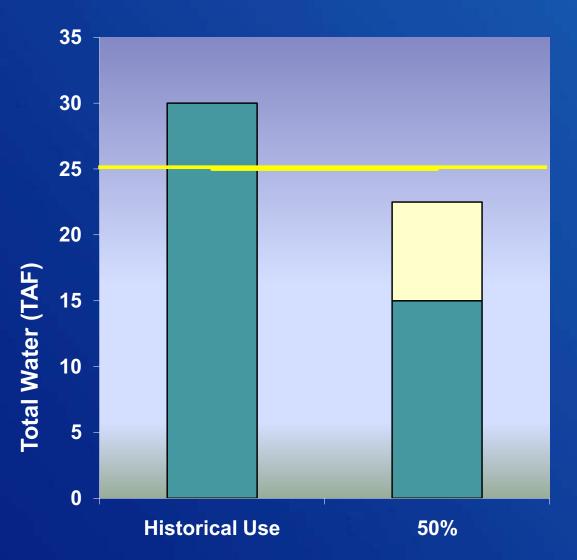


	Historical Use (TAF)	District C Supplies (TAF)
CVP Water	30	22.5
Other Water	0	0
Total	30	22.5
Public H&S Need		25
CVP Historical Use Adjustment		0

■ CVP Water
■ H&S Adjustment

Other Water
Public H&S

District C - M&I @ 50%

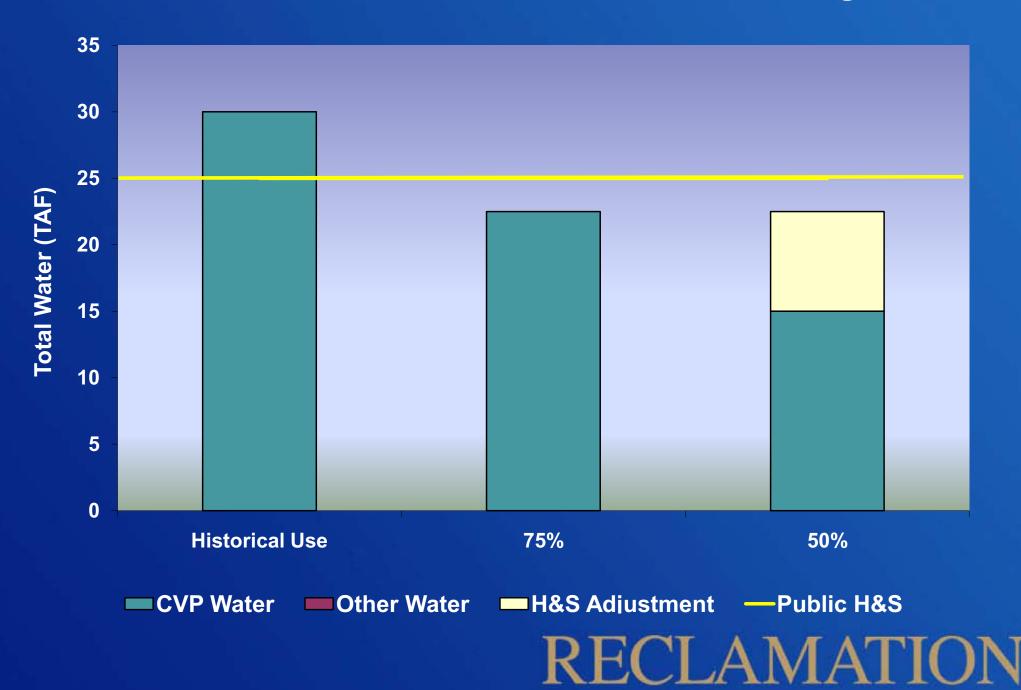


	Historical Use (TAF)	District C Supplies (TAF)
CVP Water	30	15
Other Water	0	0
Total	30	15
Public H&S Need		25
CVP Historical Use Adjustment		7.5

■ CVP Water
■ H&S Adjustment

Other Water
Public H&S

District C Scenario Summary



Q&A Period

Afternoon Session Closing

- Review / questions for clarification:
 - -1
 - **-2**
 - **-3**
 - **-4**

Next Steps

- Next workshop:
 - July 20, 2010 at 9:00 am
 - Red Lion Hotel, 1401 Arden Way, Sacramento, CA
 - Potential agenda items
- Provide input & comments by July 13, 2010 to:
 - USBR: Tammy Laframboise tlaframboise@usbr.gov
- Updates and new information available on M&I WSP Website - http://www.usbr.gov/mp/cvp/mandi/index.html

Thank you